

## CLAIMS

- 1- Method for processing video pictures, the video pictures consisting of pixels digitally coded, the digital code word determining the length of the time period during which the corresponding pixel of a display is activated, wherein to each bit of a digital code word a certain activation duration called sub-field is assigned, the sum of the duration of the sub-fields according to a given code word determining the length of the time period during which the corresponding pixel is activated, said method comprising the following steps:
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- 10 - Detecting the video pictures source mode and the parity between pictures
- If the source is in film mode, distributing the total number of sub-fields used for two frame raster in three groups of sub-fields, and
- assigning to a value of a pixel, a code word that distributes the active sub-fields period over the three sub-fields groups.
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- 2- Method according to claim 1, wherein each group of sub-fields comprises a number of sub-fields equal or different by one.
- 20 3- Method according to claim 1 or 2, wherein the three groups of sub-fields have identical structure at least in terms of the most significant sub-fields.
- 25 4- Method according to claim 1 or 2, wherein the three groups of sub-fields have identical structure at least in terms of the least significant sub-fields.
- 5- Method according to one of claims 1 to 4, wherein the detection of the video pictures source modes and the parity between pictures is done by analysing the intra field motion.
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6- Method according to one of the claims 1 to 5, wherein the change of coding from the coding used in camera mode to the coding used in film mode is made at the next frame following the detection of a change between the source type.

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7- Method according to one of the claims 1 to 5, wherein the change of coding from the coding used in film mode to the coding used in camera mode is made using the following steps:

- If in a two-frame raster, the first picture is in film mode and the second picture is in camera mode, add at the beginning of the second frame, a sub-field having a weight corresponding to the missing energy to obtain a correct first picture,
- Code the second picture using two groups of sub-fields with a total number of sub-fields less than the usual one, then
- 15 - Code the following pictures using two groups of sub-fields with a total number of sub-fields equal to the usual one.

8- Apparatus for processing video pictures, the video pictures consisting of pixels digitally coded, the digital code word determining the length of the time period during which the corresponding pixel of a display is activated, wherein to each bit of a digital code word a certain activation duration called sub-field is assigned, the sum of the duration of the sub-fields according to a given code word determining the length of the time period during which the corresponding pixel is activated, said apparatus comprising a gamma block  
20 (1), the signal from the gamma block being sent in parallel to a classical signal processing circuit and to a mode detection block (3), the signal from the mode detection block being sent to a coding selection block (4) that sent a selection signal to a block (5) comprising the various coding LUT (Look Up Table) to select the right LUT.

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